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## ORIGINAL DEPARTMENT.

### COMMUNICATIONS.

#### EFFECTS OF MEDICINE IN SMALL DOSES.

Read before the Section on the Practice of Medicine,  
American Medical Association,

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We have been for years past gradually lessening the doses of medicine that we administer to our patients. A lesson has been furnished us by homœopathy, however irrational it may be, as far as the matter of giving less medicine is concerned, and many of us who have studied the effects of remedies in different doses have discovered that very small quantities will produce very striking results. The experiment of giving small doses can be safely tried in nearly all the cases of disease which we are called on to treat. Practically, as some writer suggests, these diseases may be divided into three forms.

1. Those that recover by natural means, that is, under the influence of time, rest and abstinence.

2. Those that no treatment can benefit, it matters not how scientific or rational it may be.

3. Those that can be benefited by judicious treatment, and in the cure of which the best possible judgment must be exercised, not only to save life, but to avert evil results.

It is only in diseases of the last named class that remedies can be usefully employed, and the deductions embraced in this paper are based on the results obtained from their administration in these cases.

Before proceeding to discuss individual remedies, we beg to state that we entirely agree with Sir Edward Blaine, in the opinion that remedies are relative agents, and that their virtues cannot be fairly essayed or beneficially ascertained by trying their effects on sound subjects, and that morbid conditions are actually necessary to test their true value. And, further, we desire it to be understood that all the inferences contained in this paper are the result of our own clinical experience.

We will now proceed to examine into the effects of

#### Calomel.

When we first commenced the practice of medicine, more than thirty years ago, it was the custom of practitioners generally to prescribe calomel in large quantities; indeed, in the western and southwestern States of the Union, it was frequently administered in teaspoonful doses. Calomel given in this way does not, as a rule, cause salivation; for the reason that very little of it is absorbed. As in the case of large doses of iron and bismuth, as we shall hereafter show, the greater part of it is carried off by the bowels. Calomel will, however, by its very weight, act mechanically, and in this way will frequently arrest obstinate bilious vomiting, when all other remedies have failed. It is a very remarkable circumstance, too, that it will, in very minute doses, control the persistent vomiting of pregnancy; indeed, I know no remedy so efficient in this condition as one-twelfth of a grain of this chemical given three times daily, for a period of a week, or ten days. No enlightened medical man, at this day, prescribes calomel

simply as a purgative. If administered at all, it is given to procure its well known alterative effects, or its action on the liver through the influence it exercises on the duodenum. In our own practice we have found no agent so prompt and so specific in its action on the mucous membrane as calomel in small doses. This is peculiarly evident in diseases of the alimentary tract in children. The administration of mercury is never carried, in our day, we believe, to the point of actual salivation. All that is deemed necessary is to have the system thoroughly influenced by the remedy, as evidenced by the breath and tenderness of the gums, and this is best accomplished by one-grain doses given three times daily, in combination with opium. As an alterative, very small quantities are undoubtedly the most efficacious. Plummer's pills, than which no better remedy can be given in tertiary syphilis and chronic rheumatism of a syphilitic character, contain but a half-grain of calomel each. The pill of the British Pharmacopœia is still weaker. The bichloride of mercury too, in small quantities, exercises a remarkable influence over affections of the mucous surfaces. Ringland has called attention to its potency in dysentery.

No one who has had any experience can be in doubt as to the power of calomel in the treatment of disease. To secure, however, its just and true influence, it must be administered with great care, and in small doses. Unfortunately it is too frequently given empirically, and without any accurate knowledge as to its effects. It is truly the great searcher of the human system. There is no secretion that it does not stimulate and promote; the mucous surfaces, the liver, the kidneys, the skin, the glandular apparatus, and every part of the body, is reached by it. That it has fallen into disrepute as a remedy, in the last quarter of a century, there is no doubt. This, we believe, is owing entirely to its use in large and unnecessary quantities. In safe hands and in small doses it still is, as it will ever be, a most valuable agent. Headland says that very minute doses can be given in debility, and even in scrofula, in which cases it acts as a tonic by stimulating the functions of the liver. He also recommends the administration of very small portions of the bichlorate of mercury in chronic syphilitic affections, if we wish to secure the special blood action deemed necessary to destroy the poison in this disease. We entirely concur with him in this opinion.

#### Iron.

Iron is, perhaps, the most popular remedy of the day. It is administered in nearly every form of disease, to all classes of people, and for every variety of trouble in which anæmia is supposed to hold a place. This indiscriminate prescription of iron has grown up in the last few years, and surely needs some correction. The doses given are entirely too large, and unnecessarily tax the digestive functions. This is apparent from the fullness about the head frequently caused by its use. But a very small portion of iron can be absorbed, and this only by the aid of the acid of the stomach; and if large doses be given, the greater part, if it act at all, must act mechanically, after the manner of bismuth; but the presumption is that it does not act at all, and is carried off as so much waste material, through the intestines. This is shown by the character of the stools. Iron is not truly a tonic; it is merely a restorative. Even in some cases of anæmia it is not a restorative, save in the very smallest quantities. This is owing to the system being so debilitated that it is incapable of assimilating the remedy, and carrying it to its true destination. The tincture of the sesquichloride of iron is decidedly the best preparation we have in liquid form, when given in proper doses. The muriatic acid adds greatly to its efficacy, by its tonic and diuretic effects, apart from the power this acid has of rendering the metal more soluble. Sulphate of iron in large doses is an irritant, but in small quantities proves one of the most certain and powerful of the preparations of this metal. In administering iron it should always be borne in mind that it is not a catalytic agent, and can be only useful to the extent of its absorption into the blood, and its action on that fluid. Dialysed iron, which is a hydrate of iron containing no acid, will, no doubt, in the future, be the only form employed, on account of its being readily absorbed, and its freedom from the bad effects of all preparations of this mineral. Although a strong solution, it possesses no unpleasant taste; does not produce constipation, nor disturb the digestive powers. Its discovery we esteem a great boon indeed.

#### Quinine.

Quinine is, perhaps, the most potent and unerring of all our remedies, though its precise mode of action does not appear to be thoroughly understood. Like calomel, this chemical has

been, and is still administered in immense doses in the southwestern and western States of this country. This we believe to be very bad and dangerous practice. In ordinary cases of remittent and intermittent fever, not of a congestive character, doses of two or three grains, repeated every two hours, are sufficient. A toxic dose of twenty or thirty grains may forestall an attack of chill and fever, but the reaction that consequently follows leaves the nervous system in a state of depression, and produces a train of very unpleasant symptoms. We are convinced that the continued use of quinine in small doses, for a number of days, or even weeks, or months, if deemed necessary, will be more likely to effect a permanent cure in cases of malarial fever than a large quantity given in one or two portions. In severe neuralgias large doses of quinine are well tolerated, especially if given before the expected time of attack. In these cases the administration of twenty or thirty grains, by causing cinchonism, appears to more promptly and effectually break up the chain of nervous trouble than the same quantity given in divided doses. In the very aggravated forms of pyrexia, too, quinine may be given in large quantities without the usual bad effects following its administration. The great advantage of small doses of quinine is that they can be given to patients in high fever, without causing irritability of the stomach or adding to the general excitement of the system.

#### Alcohol.

Alcohol, too, like quinine, is given in too large doses. A small portion administered every hour more efficiently balances the nervous system, and brings about defervescence by lowering the temperature, than a large amount given at a single dose. The great evil of giving alcohol freely is, that after its influence passes off there is a state of prostration left which compels its continuance or the substitution of some other drug. Alcohol given in small doses acts as a temporary stimulant without producing any secondary sedative influence. In large doses its action is entirely narcotic; a fact that is apparently overlooked by many practitioners, who appear to be wholly ignorant of its physiological effects. As a catalytic agent in cases of poison from the bite of reptiles, very large quantities may be given with impunity, and also in fevers dependent upon the presence of a blood poison in the system. In all other in-

stances small doses, given at proper intervals and with due regard to the temperament of the patient, are not only the safest but the most effectual.

#### Digitalis.

The action of digitalis is not always appreciated by those prescribing it. In large doses it is an exceedingly unsafe remedy, save in delirium tremens and other allied disorders. It irritates the stomach and produces vomiting. This action is independent of its depressing power on the heart, which is produced by the influence it exercises over the functions of the vagus nerve. In small doses, say fifteen or twenty drops of the tincture, digitalis is one of the best cardiac tonics we possess; and in the same quantity it acts most efficiently in those cases of dropy which result from obstruction of the cardiac circulation. Its depressing power should be always borne in mind and guarded against. In Great Britain half-ounce doses of the tincture are administered, with advantage, in cases of mania-a-potu, but an abnormal condition of the nervous system exists in this disease, which requires enormous quantities of all remedies to produce sedation. The true office of digitalis is that of a cardiac tonic, and its prescription in future will be, no doubt, confined to cases of heart trouble dependent upon obstruction of the circulatory system. In view of this fact its well known efficacy in combination with calomel and squills can be readily understood. Its depressing and irritant effects in large doses interfere with, if not totally destroy, its power as a remedial agent.

#### Tartarized Antimony.

Tartarized antimony is a valuable agent which has fallen greatly into disuse of late years. Administered in small doses its action is most marked and beneficent. Apart from its catalytic effect in the blood, it acts as a sedative, diaphoretic and expectorant. To produce its true power, it must, according to Lænnec, be absorbed in the blood, and this can only be brought about by the administration of minimum doses. Its efficacy in small quantities, as an adjunct to purgative remedies, through its power of relaxing the muscular fibre of the intestines, is very generally known. At one time tartarized antimony entered into the composition of every febrifuge and expectorant mixture, but owing to its being prescribed in too large potions, and consequently producing

great vital depression, it lost character as a medical agent. This loss of character was, perhaps, also partly due to the great revulsion that has taken place in the practice of medicine in the last quarter of a century. The abandonment of tartarized antimony we conceive to be a very great error. We prescribe it daily, in very small doses, with the happiest results, and believe, when properly given, it possesses special merits. In disregarding its use the profession, in our judgment, has lost one of its most useful remedies.

#### Ipecac.

The effects of ipecac on the economy are very similar to those of antimony, save that it does not act on the blood, and, therefore, cannot be ranked as an antiphlogistic. As a neurotic, diaphoretic and expectorant, its power is unmistakable. Its influence on the mucous membrane, in minute doses, is most interesting. We have seen cases of persistent vomiting, which had continued for days, arrested by small quantities of this drug, all other means having failed. Very large doses of ipecac have been suggested recently in dysentery, and its use in this way, if we are to believe the journals, has been very successful. We have had no personal experience in this matter, but we can readily understand in what manner nauseating or emetic doses of ipecacuanha might, by their relaxing effect on the whole system, influence the rectum itself. Small quantities of ipecac, in combination with opium, have almost a specific action in dysentery, particularly if they follow the administration of a saline aperient. In no form is the potency of small doses of ipecac so apparent as in the troche or lozenge, where its specific action on the mucous surface of the throat and bronchi, becomes at once evident.

#### Aloes.

Aloes is another drug not prescribed with sufficient caution. Very small quantities of Barbadoes aloes, particularly when administered with an alkali or some vegetable extract, will act as a gentle aperient. Larger doses, as given in the olden time, are drastic in their action, and leave very disagreeable after results. A striking peculiarity in the action of this cathartic, not generally known, is, that an increase of the quantity given beyond a medium dose is not attended by a corresponding increase of effect. Three grains of Barbadoes aloes,

made into a pill with half a grain of nuxvomica and a grain or two of Castile soap, will, if taken after dinner or before going to bed, produce a gentle daily movement of the bowels without griping or other unpleasant consequences. In these cases the action of aloes is due to the power it possesses of slightly stimulating the stomach. Good rhubarb, too, prescribed in the same manner and quantity, will produce a like result. These are our usual prescriptions for persons of sedentary habits suffering from constipation. Rhubarb is not as good an agent as aloes, for the reason that it possesses astringent qualities, and its use is often followed by a torpid condition of the bowels. Rhubarb is tonic, astringent or aperient, according to the manner and quantity in which it is prescribed.

#### Opium.

Opium is the next remedy the action of which is to be considered. The indications for its administration are as follows: pain, muscular spasms, insomnia and nervous excitation. In small doses opium acts as a stimulant and sedative; in large doses as a narcotic. Small doses frequently given, in cases of insomnia, are much better, owing to their accumulative power, than larger ones which stimulate and produce a condition of restlessness and excitement. Save for the relief of actual pain, opium should be prescribed very cautiously, for the reason that it exercises so great an influence by arresting the secretions, and thus interfering with all the processes of life. It is only necessary to administer an eighth or a quarter of a grain to produce its peculiar action on the skin and mucous membrane. This quantity can be taken without any apparent disturbance of the economy. Opium, like quinine and alcohol, may be given in exceptional cases in large portions. Its unpleasant effects, we may here remark, when thus prescribed, such as constipation, nausea, headache, etc., may be greatly modified by its combination with belladonna or hydrate of chloral. Opium, in very minute doses, combined with ipecac, proves one of our best expectorant remedies. Administered either internally or in the form of troches, it stimulates instead of arresting the mucous secretions of the air passages.

Unfortunately the true power of opium is not generally understood, and it is therefore frequently administered unwisely. Its normal influence is exercised over the nervous system.



It produces no change in the blood. Its effects occur immediately on absorption, and in this we believe it stands alone among our remedies. To secure this peculiar effect it must be given in minute portions, as narcotism, in the slightest degree, interferes with all its beneficent influence.

#### Gelsemium.

Gelsemium is a much abused agent, owing to a want of knowledge of its therapeutic properties. In England, however, we are glad to know a thoroughly scientific investigation has been entered into, and we may in the future expect a wiser prescription of it, based on an accurate acquaintance with its qualities as a remedy. In this country it is given by many practitioners in unnecessarily large doses, and frequently, instead of producing the desired effect on the capillaries, causes a toxic condition, very agreeable, and sometimes alarming. As an antiperiodic, it acts in a manner similar to quinine. The after effects of both, if large doses be given, are poisonous, cinchonism being produced in one case, and narcotism in the other. Gelsemium, however, has to be much further tried before it can be classed as a special agent.

#### Squill.

Squill, in small doses, acts as a sedative, though it is never, we believe, given to exercise this special influence. Its power as a diuretic and expectorant is generally recognized, but it is not prescribed in this country to the same extent that it is in Great Britain. Given in doses exceeding one or two grains, it is irritant in its effects, and sometimes proves emetic.

#### Ergot.

Ergot is a remedy that is prescribed very indiscriminately. Large doses should only be given in cases of hemorrhage of the uterus, where its specific action on that organ is speedily desired. Its influence over the capillaries is best secured by small quantities given at intervals. This remedy, too, like many others, is accumulative in its action.

Arsenic, aconite, belladonna and iodide of potassium, are also remedies the action of which we would be glad to discuss, but the limits we have marked out for this paper preclude our doing so at this time. Without attempting, however, an analysis of their particular qualities, we venture the opinion that their true physiological effect can only be

obtained by the administration of very moderate, or even minute doses.

Before concluding, it may not be out of place to state that the action of many remedies is greatly modified or increased by combination with other agents. When we find combinations in nature producing remedial or curative effects, the elements entering into them are always small in quantity. What more agreeable or effectual remedies have we than the natural waters found in the springs in different parts of the world; and yet how small a quantity of the various salts is discovered in these waters by analysis. The same may be said of sea air, than which no more potent influence can be named. Would it not be well for us to take a lesson from nature in this, as in many other matters. It would be well to bear in mind that there are a number of substances the efficacy of which is increased by admixture, and one or two, the action of which is qualified by combination. The aperient effect of certain drugs is augmented by the addition of henbane, belladonna and nux vomica. The nausea and depression following the use of morphia, as we before mentioned, are almost entirely obviated by combining it with hydrate of chloral. Opium in very small quantities prevents the griping of many cathartic remedies, without lessening their potency. In giving large doses of calomel, salivation is prevented if this mineral be mixed with bicarbonate of soda or chlorate of potash. This last combination does not appear to be a chemical one, or *scientific*, at first glance, but I am assured by capable chemists that no bad effects result from its use, and that a chloride of mercury is not really formed. Iodide of potassium supplements treatment by mercury, and in those cases where there exists a lingering of the poison, it appears most beneficial. The emetic effects of tartrate of antimony are counteracted by its admixture with opium. It was formerly largely given in this way in cases of delirium tremens, and is still used in Ireland in protracted labor due to rigidity of the os uteri. Trituration, too, may be mentioned as a means to increase the power of medicines. This is a means very little understood. There are many other combinations modifying the action of medicinal agents, but they are no doubt familiar to you all. Our only purpose at this time is to call the notice of the profession to the efficacy of small doses of certain unmistakable remedies in daily use, and to invoke a greater watchful-

ness in the administration of drugs, as well as closer attention to their effects when given in large or small quantities.

#### Deductions.

1. That the true physiological effect of remedies may best be obtained by the administration of small doses frequently repeated.

2. That medicines thus given are accumulative in their operation.

3. That the effect of remedies is greatly increased by combination, the manner of preparation, the time and mode of administration, etc.

4. That large doses of medicine frequently act as irritants; that they produce an abnormal state of the blood, as is evidenced by such conditions as narcotism, alcoholism, iodism, ergotism, bromidism, etc.

5. That more special attention should be given at the bedside, to the influence of remedial agents, to the end that a greater certainty may be exercised in their prescription.

### PERINEORRAPHY.

BY F. H. GETCHELL, M.D.,

Clinical Lecturer on the Diseases of Women, at the Jefferson Medical College.

Read before the Philadelphia County Medical Society, June 12th, 1878.

I regard the operation for restoration of the female perineum as a very important one, for the reason that the opportunities for performing it are so numerous.

There is no operation that the gynecologist is required to perform so frequently; and if he succeeds in doing what he attempts (restoring the perineum) the value of his services to the unfortunate female cannot be over estimated.

My apology for reading a paper before so learned a body, on so common an operation, is, that on examination, months after the operation, I have met with so many cases operated on by myself and far more skillful surgeons, in which the condition of the patient was but little if any better than when she first applied to the surgeon for treatment. And it is because I have reason to be better satisfied with my results for the last few years, that I trespass upon your time to explain the way in which I do the operation now.

It would be out of place for me to take up your time with the causes of rupture of the

perineum, but I wish just here to say that most of the cases that I have seen were the result of the use of the forceps, and most of them occurred at the first confinement, so that for years it has been my invariable rule to remove the instrument as soon as the child's head distends the perineum, in a first labor; by so doing a little time is lost, but the perineum is often saved.

In my judgment, far too little attention is paid to the treatment of the patient previous to the operation. In many of the cases the womb is in a condition of complete prolapse, and has been so for a long time. All the supports of the uterus are in an abnormal condition; the ligaments are stretched, the vagina is everted, the womb, from congestion, is too heavy. Now if, as is often the case, the operator returns the organ within the pelvis and closes the perineum, it will be but a very short time before the uterus will stretch the newly formed tissue apart, and find its way outside the body again; but if, by the use of appropriate remedies, the uterus be relieved of the congestion and resulting hypertrophy, and if, by the use of a pessary supported externally, the organ be kept in position till the vagina recovers its tone and the ligaments are in a condition to help hold the uterus up, the results of the operation will be very different; and if months are required to accomplish this, the time is not lost. It is my practice to continue to hold the womb up off the parts for some time after restoring the perineum, in order that the union may attain firmness sufficient to resist pressure from above, should there be any.

I think there is no operation the reports of which are so well calculated to mislead the young practitioner as this one; all, or nearly all, are reported as perfect successes, and honestly so, for the report is made just after the operation, when the external appearance of the parts is very much improved; the long, gaping opening is replaced by a well-closed vulva. Convinced of his success, the operator so reports it, when, if he had waited for a year, and then examined his patient, he would have found, in very many cases, that he had not restored the perineum at all, but had only united the skin for an inch or two, from which she had received little or no benefit, and had found herself, after a few months, as bad off as before the operation.

The union of the skin high up is a matter of

very little importance compared with diminishing the capacity of the lower two inches of the vagina by a firm union, of a triangular shape; and, I believe, in a great majority of cases, that may be done, the patient having had the advantage of skillful treatment to put her in a proper condition, by operating in the following manner:—

Let her be placed on her back upon a table, before a window, and when etherized, her legs are to be held in position by two assistants, who also, with the fingers of the free hand, stretch open the vulva. The operator sits before his patient, and, having removed the hair from the labia, introduces two fingers into the rectum, to put the parts upon the stretch, and, with the scissors curved on the flat, he removes a thin layer of the mucous membrane, for a distance of two inches up the posterior wall of the vagina; then, dissecting from this line on either side, he denudes a triangular surface, which extends from the lower anterior edge for an inch and a half up the labia, and for two inches up the posterior wall of the vagina. Every part of this surface must be denuded, and it is important it should be done evenly, and the thinner the lamina taken off the better.

The hemorrhage is always slight, and it is better not to use ice or to throw a stream of water upon the parts with a syringe, nor is it well to close the wound and depend upon the sutures to stop the bleeding. I am in the habit of waiting half an hour, till all oozing stops, and the denuded surfaces present a glazy appearance, before introducing the sutures, and it is upon the way in which *this* is done that everything depends.

Iron wire, plated with silver, is less likely to break than silver wire, and is preferable, for that reason.

The first suture is a very important one, as you depend upon it to control the action of the muscles: it is introduced by entering the point of the perineal needle an inch from, and half an inch below, the lower angle of the wound, passing it across the middle of the vivified surface, and out at a corresponding point on the opposite side. This suture passes over the rectum and under the denuded surface, and is not seen in the vagina. The eye of the needle, which is at the point, is now threaded, and as the needle is withdrawn the suture is introduced. The second suture enters from half to three fourths of an inch above, and is passed in

the same way; all the other sutures are seen in the vagina, just at the edge of the vivified surface.

Now, if you pass both ends of the suture through a perforated shot, run it down and clamp it, you will be very much pleased with the appearance of the wound after it is closed in this way—but what will you do? You will pucker the whole mass up, instead of bringing the surfaces evenly together; you will be obliged to draw the wire so tightly that you will interfere with the circulation by this process of strangulation; and once the shot is clamped in this way, it cannot be removed; and as the part swells, as of course it will, if the wire does not cut through the skin (as it often does), it is because the mucous membrane within the vagina offers less resistance, and as there can be no union outside the sutures, all this is lost.

To obviate these difficulties, you are directed by some operators to clamp a shot on each end of the suture, but when I did this I found that the shot were pulled through the skin and the edges of the wound separated. So I made some little disks of lead, about the size of a silver three-cent piece, punched a hole in them and ran them down, then ran the shot down and clamped it. This I found to answer the purpose perfectly, and I do away with the shot now by using disks of lead, made for me by Mr. Gemrig, with a nipple on them to be clamped, to hold them in place.

In this way you close the posterior edges of the wound, and the anterior edges are now brought together by taking the end of a suture in each hand, crossing them and twisting them twice around; in this way the parts are brought perfectly together.

I do not cut off the ends of the wires, but leaving them about three inches long, gather them in a bundle and wrap them with a piece of muslin, and as you find the swelling to increase, untwist the wires a little and give the parts more room, and after a few days, as the swelling decreases, twist them tighter, from day to day, if they require it. In this way the parts are kept evenly together, and as the surgeon watches his bandages and prevents strangulation by giving more room when more is required, so you from time to time adjust your dressings, in accordance with the condition of the parts.

The bowels are kept closed with opium; the

water drawn; the knees tied together. The sutures may be removed the seventh or eighth day. The bowels may be moved with care on the ninth or tenth day, and I think well of locking them up again for a week afterward. Of course all I have said here relates to ruptured perineum when the parts have cicatrized; in recent cases I am in favor of immediate operation, and I put the stitches in the same way.

My results since I have operated in this way have been very satisfactory, but they have not all been perfect successes, and from the many cases that I have met with at the clinic, and in my private practice, that have been operated upon by others, I am sure that I make no mistake when I say again, that those operators who never fail to restore the perineum would make a different report if they waited for a year, and then examined their patients.

## MEDICAL SOCIETIES.

### COLLEGE OF PHYSICIANS, PHILADELPHIA.

At the regular meeting, June 5th, a report of a case of

#### Ulcerative Endocarditis, with Pyæmia,

was read by John M. Keating, M.D., physician to the Philadelphia Hospital, as follows:—

M. S., age 34 years, was admitted to the Medical Ward of the Philadelphia Hospital, on a Monday in April, 1878.

The patient had the appearance of being well nourished; was a washerwoman; was married; had had two children; and stated that she had never been sick before in her life. Rheumatic history was carefully searched for, but none obtained; she denied ever having had syphilis, and no eruption nor scars were found to disprove her statement. She complained of obscure pains in the joints, and of muscular pains, but when questioned closely stated that the feeling was one of stiffness rather than pain, the symptoms all being of very moderate intensity. There was a rise in temperature. She was seen that evening shortly after admission, by the resident physician, who, thinking the case to be one of muscular rheumatism, ordered her a dose of *jaborandi*. The following morning she expressed herself as feeling perfectly well, she had perspired profusely, and the temperature was nearly normal.

Owing to my absence, my colleague, Dr. Edward T. Bruen, who had temporary charge of the ward, and to whom I am indebted for the following notes of the case, after instituting rigid inquiries which elicited the above history, made a careful examination.

Upon percussion the heart was found in its normal position, and not hypertrophied; the apex beat was normal. The pulse was regular, rather small, resembling that found in cases of mitral regurgitation. Auscultation revealed a basic, systolic murmur, but this murmur was transmitted downward to the ensiform cartilage, and was heard louder at that point than at the base. There was also a murmur at the apex, and this was slightly transmitted to the axilla. The murmur was not found in the arteries of the neck, nor was either murmur heard in the back. The first murmur was blowing, low in pitch, and occupied the whole of the systole. At times the radial pulse became more feeble for one or two consecutive beats, and then the murmur was faint or entirely absent. The venous system was moderately engorged throughout, but there was no venous pulse. This moderate but still marked engorgement was more than could be accounted for by the apparently slight valvular lesion. The second sound of the heart was impaired; it was but feebly accentuated, and had not the clear, defined characteristics of health.

The lungs were normal throughout. There was no dyspnoea. There had never been hemorrhages. There had never been dropsy, nor had the patient suffered from headache. The urine was not albuminous. The patient stated that she had of late suffered at times from gastric irritability, and that this still remained. She was ordered the *tinctura ferri chloridi*, and a *pill* of *digitalis*, gr. ss., *quinine sulphat.*, gr. ss., *extract genitiane*, gr. j, thrice daily.

The report on Thursday morning stated that the patient had vomited all through the night. The temperature on the previous evening had been very high, but was now, as will be seen by the temperature chart, lower than normal. There was slight joint pain, no tenderness, and no other bad symptoms. Heart the same as before. Medicine discontinued.

During the day the vomiting ceased, the pain disappeared, and the patient felt comparatively well; in the evening the thermometer again showed a rise.

*Friday Morning.*—Patient seems perfectly well. She asked to get up, but this was forbidden. In the evening the temperature again rose. She was unusually bright.

*Saturday Morning.*—The patient sat up in bed about six o'clock, to arrange her hair, when she complained of sudden and great dyspnoea, and intense pain. Shortly afterward she became almost collapsed; the feet and hands were cold, and the body blue and covered with sweat; the facial expression anxious; and the radial pulse almost imperceptible. The respirations were very rapid.

When seen by Dr. Bruen, at ten o'clock, these symptoms continued unabated. He at once examined the heart and found upon percussion a dullness reaching from the second to the sixth rib on the left side, and from the right sternal border four inches to the left. This broad area of dullness extended over the whole



region of the pericardium. Surrounding this area of dullness, pulmonary resonance was clearly and sharply defined. Palpation revealed no apex beat. The sounds of the heart were scarcely audible, and were distant; but when distinguished, as they occasionally were, an absence of murmur was noted. The respiratory murmur was harsh, but was heard distinctly everywhere. The diagnosis of extensive pericardial effusion, of course, was clear. The very sudden onset explained the gravity of the symptoms.

It will now be seen that, as the temperature and vomiting indicated pyæmia, and the murmurs revealed an endocardial roughening, the diagnosis of ulcerative endocarditis with rupture of the heart seemed plausible. On this account paracentesis was deemed unnecessary. During the day the severity of the symptoms decidedly ameliorated, and at 5 P. M., when again seen, the patient expressed herself as feeling better; she was, and had been, perfectly conscious; the pulse could be felt at the wrist; the general surface of the body was warmer; and the heart sounds more audible, and with no murmur. The precordial pain had entirely disappeared.

The patient continued to do well till ten o'clock that night, when suddenly the above-mentioned symptoms returned with all their previous intensity, and she died in a few minutes.

A post-mortem examination was made fourteen hours after death. Body well nourished; no scars anywhere to be seen, and no evidence of specific disease.

When the sternum was removed, the pericardial sac was found distended to a very great degree. The lungs appeared somewhat engorged, but there was no oedema, and otherwise they were perfectly healthy. When the pericardium was opened, about twelve ounces of fluid blood were removed, with a large amount of clots of various sizes. Adherent to the heart was a stringy clot, which, when traced to the point of its apparent origin, was found attached to a process springing from the base of the aorta posteriorly, at the junction of the aorta and the cardiac muscle. An opening was carefully searched for at the place where the clot was adherent, and one was found, so small as scarcely to deserve the name, being merely large enough to allow the passage of a No. 8 needle. The process mentioned above was test-like in shape, and about half the size of an ordinary nursing-bottle nipple; it was composed of the outer sheath of the aorta.

The left ventricle, being opened, presented a healthy appearance, as far as the size of the muscular structure and its condition were concerned. There was no fatty degeneration, and no hypertrophy. The mitral valves were healthy; the aortic were sufficient; and the general appearance of the endocardium was healthy, with the exception of a spot below the origin of two of the aortic valves, where there was a crater-like mass about the size of a dime, which, with jagged edges, surrounded an ori-

fice communicating by a narrow sinus with the test-like process before mentioned. This ulcer opened by a larger opening, probably large enough to transmit a lead pencil into the right auricle, just inside the attachment of the internal leaflet of the tricuspid valve. A mass of fleshy granulations, resembling in size that found in the left ventricle, surrounded the opening here also; and that portion of it nearest the right ventricle had, no doubt, interfered so with the proper closure of the tricuspid valve as to give rise to the systolic murmur there heard. Otherwise the right cavities of the heart were normal in every respect. The pulmonary valves were not in the least affected, even by thickening, nor were the tricuspid valves at all diseased. No atheroma was anywhere visible. All the other organs were in perfect health.

Death from perforating ulcer of the heart is certainly of great rarity. But few cases are found on record with an ante-mortem history so complete as to permit of, at least, a supposition of the originating cause of the occurrence. The symptoms recorded in the many reports of cases of heart rupture are very vague and obscure, relating, as they all do, simply to the rupture, not to the cause. The data that we have to base our clinical studies upon are the verdict of the coroner's jury and such information as can be gathered from the statements of friends.

Intrinsic diseases of the heart,\* such as fatty degeneration, etc., are the usual causes of rupture, and as such pathological changes are found in persons past middle life, rupture of the heart is usually found at that age. Markham's† report of twelve cases of heart rupture, excluding those of traumatic origin, taken from the first seven volumes of the London Pathological Society's Transactions, shows us that the youngest patient was 52 years of age, the oldest 79. Seven were men, five women. In nearly all, if not in all, the coronary arteries were diseased. Quain‡ reports 88 cases; 63 in persons over sixty, 33 between sixty and seventy, and the remainder between seventy and eighty years of age. He states that in many cases no symptoms whatever were noticed antecedent to the death agony. Out of 100 cases, death occurred in one or two minutes in 71; one patient lived eight days; one six days; one three days; and five over forty-eight hours. The heart was fatty in 77 cases, and in 6 "softened." In one case there was bursting of an aneurism, and in one the rupture was due to an abscess. Acute disease of the endocardium or of the heart substance may lead to the same result, by the formation of an aneurism through the yielding of the endocardium at any point, in the former case, or by localized myocarditis with the formation of an abscess, in the latter. In interstitial inflammation of the heart, the pus formed, follow-

\*Schroetter. Ziemssen's Cyclopædia of Medicine, vol. vi.

†Medical Times and Gazette, 1859.

‡Lancet, 1872. Vol. i.

ing channels, may burrow in various directions. As the foci of inflammatory action are occasionally discrete, and oftentimes limited in number, they have been called cardiac abscesses.\* When they ulcerate through the endocardium or begin in that tissue, they form ulcers.

Senac,† in 1749, first pointed out that ulcers or abscesses of the heart were more frequently found at the base, referring at the same time to diseases of the pericardium and neighboring organs as their immediate cause. Deitrich, in 1852, made the same observation. They usually occur between the ages of twenty and forty.‡ According to Schroetter, "primary disease of the heart substance is very rare. There are only a few cases described where no possible cause could be ascertained." Syphilis is stated by the same writer to be a cause. The acute fevers, especially typhus, are among the many causes that have been assigned for abscess of the heart and ulcerative endocarditis, but rheumatism, according to most authors, is the most frequent. The puerperal state has an equal tendency to this result, and the so-called metastatic abscesses are found in all active muscular organs having poor nutrition. Pyæmia, is then, the most prolific cause.

But ulcerative endocarditis, according to Lancereaux,§ is not always an off-shoot of the rheumatic process; the high temperature, vomiting, and chills, with sudden syncope, which may disappear, or may be followed by death, are really the symptoms of the concurrent pyæmia. Lancereaux believes that purulent ulcers of the endocardium may be the result of intense malarial poisoning, but that they are then never situated on the valves themselves, but occupy the heart lining at the valvular attachments, and produce death either by perforation or by pyæmia. In support of his view he quotes the observations of Winge and Heiberg, verified in one case by Virchow, where vibriones of filiform shape were found in the ulcers.

It may be interesting to glance over the cases reported that bear upon this intricate subject, and endeavor to gather what we can to complete its etiology.

As an example of secondary abscess of the heart caused by metastasis or thrombosis, may be cited the case reported by Dr. Moxon,|| of a child at Guy's Hospital with suppurative periostitis, where death resulted from multiple cardiac abscess. There were abscesses in the kidneys also.

Dr. Inman¶ reports the case of a man of thirty-five, who had complained of "ague-shakes" for three or four hours daily, during seven or eight months. There was no malarial history. Nothing wrong could be detected with

the heart or lungs. The patient's intellect seemed affected as in the early stage of typhoid fever, and he had a yellow, jaundiced complexion. The man died suddenly. After death there was found an extensive abscess at the base of the pulmonary artery, and this abscess communicated with the right ventricle behind one of the valves of the artery. Around this opening a fleshy vegetation existed, about the size of a horse bean. The lungs contained diffused and infiltrated pus. This patient's case was one, evidently, of primary suppuration of the gland in that vicinity, from which pus had been thrown into the venous current for some time.

The most interesting case, and the only one that I can find analogous to that which I have had the honor to report, is one given us by Heslop,\* of a girl aged 18. There was no heart murmur, but the action of the organ was tumultuous and irregular. On the patient's admission to the hospital, she stated that she had had rigors, followed by flushes of heat, but never any rheumatism. She was a weak, anæmic girl, and died in convulsions. The part of the endocardium immediately beneath the semilunar valves (in the left cavity†) presented an irregular, ecchymosed surface, and had the appearance of being undermined, leading to the base of the aorta. At the attachment of the middle and anterior segment of the valves was a mass of fibrinous deposit the size of a small walnut, surrounding a cavity containing a recently formed coagulum, pus, etc.; it did not perforate. It was noticed that two days before death a continuous blowing sound was heard, accompanying and masking both first and second sounds. The patient had vomited at the commencement of the attack, and there was epigastric tenderness; rigors set in early, and the skin was jaundiced. Death took place, in all probability, from pyæmia.‡

Greenfield notes, for Dr. Murchison,§ a man aged 56, in whom the temperature from May 7 till June 1 varied, with nightly exacerbations, from normal to 105° Fahr. The rigors occurred at irregular periods, sometimes more than once daily. The mitral valves were thickened, and

\* *Medical Times and Gazette*, vol. ii, page 245, 1858.

† Hanka (*Medical Times and Gazette*, 1855), is quoted to have shown, by 300 examinations of hearts, that there was in the normal septum a spot varying in size from a bean to an almond, entirely destitute of muscular substance, the two chambers being there separated only by the layers of endocardium that line them. Examining the septum from the left, after slitting up the aorta, we may remark a thin diaphanous spot under the angle formed by the convex borders of the right and posterior semilunar valves of the aorta, being closed above by a thin muscoid bundle, coursing along the contour of the ostium arteriosum sinistrum. In the right ventricle, the deprivation of muscular substance is covered by the end of the tricuspid valve, and so thin is the duplicature of the endocardium that the lines and markings of the fingers held under it can be seen through.

‡ In Watson's Practice I find it stated that "a Duchess of Brunswick died of rupture of the heart. In her case an ulcer penetrated the parietes of the right ventricle, which in other respects was healthy."

§ *Lancet*, vol. i, 1873, page 909.

\* See an interesting article on this subject in Hayden, "Diseases of the Heart and Aorta."

† Schroetter, loc cit.

‡ Ibid.

§ De l'Endocardite végétante ulcéreuse; Archives Générales, 1873.

|| *Medical Times and Gazette*, vol. ii, 1872.

¶ Ibid, vol. i, 1862.

the aortic slightly affected; the tricuspid valves also were thickened. There was a granulating, white mass, an eighth of an inch thick and a quarter of an inch long, on the border of one flap; the heart was the seat of fatty degeneration.

Cases have been recorded where friction was suggested as a cause of endocardial ulcer, by Dr. Hodgkin, Dr. Hilton Fagge, and others. Coupland\* records a case with an aneurismal pouch starting from a nodule on an aortic valve which directly faced it.

In this short *résumé* of a subject about which really so little has been written, it will be seen that ulcerative endocarditis is looked upon as secondary to various affections and diatheses; as a primary disease it must be looked upon as rare, particularly when limited to one spot, as it was in Heslop's case and in that which I have reported; in fact, in the above cases it may even be attributed to a cachexia, where a focus of inflammation started either in the connective tissue of the heart, or in the endocardium, resulting in an ulcer which, small as it was, induced pyæmia. Suppurating processes near the heart may involve it in their progress, as we have already seen; again, there is no reason why metastatic infiltration or infectious embolism may not occur and give rise to phenomena so intense as to mask the primary irritation; or thrombosis of the cardiac veins or of atheromatous coronary arteries, may be a cause, in persons advanced in years. Malaria, from pigmented deposit or otherwise, may give rise to embolism, or, if the germ-theory be accepted, the emboli may be charged with bacteria. But notwithstanding all these varied causes assigned by authors, undoubtedly some cases exist unaccounted for, and that which I have had the honor to report stands boldly forth as an example.

In a strong, healthy woman, bearing evidence of no previous disease, with all the other organs in perfect health, a small ulcer situated in healthy tissue demands an explanation which none of the cases I have cited throw light upon. The process, without doubt, had been going on for some time. Could some congenital malformation, some previous strain, or the puerperal state, have laid the foundation of disease at a point where the blood current was directly and forcibly impinging; or shall we attribute the rupture to an abscess of a lymphatic gland within the heart substance? But take it as we may, it serves to prove that, as far as we know, such cases can occur spontaneously, or rather, idiopathically.

Among the many points of interest in these cases we have the temperature. A small quantity of pus, measured by the drop alone, gave rise, in this case, and in others I have cited, to the most marked symptoms of pyæmia, viz., hectic, vomiting, and, in some, jaundice, chills and convulsions.

In the patient spoken of by Dr. Inman the pyæmic symptoms had lasted many months,

\* *Lancet*, vol. II, 1875.

and the fleshy vegetation at the cardiac opening of the abscess showed that pus had been intermingling with the blood for some time. The same existed in Heslop's case, and also in mine.

The only symptom, then, that marks this disease is pyæmia, coming on suddenly, and usually associated with some cardiac disturbance, or else with embolic infarction of other organs. Of course, the symptoms of pyæmia are severe\* in proportion to the amount of pus entering the circulation, or to the non-resisting power of the nerve centres to its poisonous action. Chance† speaks of a boy, aged thirteen, who, apparently in perfect health, but with a scrofulous diathesis, was attacked one day, immediately after eating, with nausea and vomiting. The next day he became drowsy, and complained of feeling very sick, with pain in the stomach. Finally complete coma set in, with rapid and fluttering pulse, and occasional convulsive movements. He died in two days from the beginning of the attack. There were multiple abscesses of the heart, with perforation and pericarditis. Here nothing was observed until perforation into the pericardium had taken place. But in all cases where ulcerative endocarditis has been found a rise in temperature has been noticed.

Jaundice may be said to be dependent on the length of the attack; in those where pus was pouring into the circulation for some time, it was always noticed but not otherwise.

Vomiting has always been present, both in the very acute and in the more prolonged cases, though usually it has been more frequently seen in the former, as tolerance seems to have been established in the latter cases. I would call attention to the fact that, in Heslop's case there was no stupor characteristic of a typhoid state, nor septicæmia, but that the patient died in convulsions. In the case reported by me there was consciousness to the very last. Patients dying of puerperal pyæmia also exhibit this peculiarity.

As regards physical signs, there is nothing that will aid us in diagnosis until perforation takes place. If the abscesses are numerous or confluent, irregularity and tumultuous action of the heart may aid us. If ulceration takes place, murmurs will be produced, differing in character and position from those of valvular lesions, unless the action of the valves should be interfered with. It may be well to state here that old valvular deposits, from rheumatism or other causes, may become caseous and break down,‡ causing at times pyæmia or embolic infarction in other organs (secondary ulcerative endocarditis). The murmurs heard, in such cases, would, of course, be limited to the valves affected. The corporeal endocarditis of acute specific fevers, such as puerperal or scarlet fever, or pyæmia, may lead to ulceration, and

\* *Medical Times and Gazette*, October, 1877.

† *Lancet*, vol. I, 1846.

‡ See case by Pepper, *Transactions of the Philadelphia Pathological Society*, vol. IV.

ulcers will then form on the papillary muscles, often eroding them.\*

In Greenfield's case there was heard at the ensiform cartilage and over the lower part of the sternum a loud systolic murmur, which became fainter toward the left, but was replaced on that side by a rough systolic murmur, apparently distinct and conducted to the angle of the scapula; all the valves, as we have seen, were affected more or less, and hence the mitral regurgitant murmur; the tricuspid murmur was aided by the fleshy mass spoken of. In Heslop's case there was no murmur, but the action of the heart was "tumultuous and irregular." In my case the aortic valves showed no insufficiency, but at times there was slight systolic roughening; the tricuspid murmur was well marked, but the feeble mitral-systolic murmur was not transmitted to the back, and may have been due to the granulations changing the course of the blood current.

In conclusion, then, I think that we can safely assert that *primary* abscess of the heart, or primary ulceration, if it proceed far enough, independent of general myocarditis, is occasionally found.† I cannot offer any explanation except that it may be due to diseases of the lymphatic channels or the glands. I have no doubt that many of the cases recorded as secondary ulceration, and attributed to multitudes of causes, were, in reality, cases of this kind occurring in persons of strumous diathesis. Can we proceed further, if we accept this theory, and give credit to small abscesses of lymphatic origin, in the heart or arteries, in early life, for the starting point of those obscure cases of aneurism where the absence of atheroma is noted?

Of course little is to be said under the head of treatment. When the cases come to us they are usually beyond our aid. Cases have gotten well, and, after death from other causes, calcareous nodules, have, it is said, been found embedded in the heart muscle.

A paper was also presented on

#### Medical Missionary Work.

with some notes on the Condition of Medicine in Japan, by W. W. Keen, M. D., as follows:—

In the spring of 1870, Dr. John C. Berry graduated at the Jefferson Medical College. He went to Japan as a medical missionary of the American Board, in 1871, and after the most arduous labor returned to this country in 1877, to recruit his broken health. Through his

\* Dr. Harrison Allen, in answer to a note from me, kindly gives me his opinion on this subject, as follows: "The researches of Schweigger-Seidel show that lymphatic vessels are in abundance beneath both pericardium and endocardium, and from these two localities freely communicate by irregular spaces in the muscular structure of the heart wall. I presume that an analogous arrangement exists in the septum between the endocardial surfaces of the right and left hearts. The glands are outside the cardiac figure, at the base. I could not localize an abscess at the base of the ventricular septum by reason of any known disposition of lymphatic glands or vessels."

† Hayden, "Diseases of the Heart and Aorta;" Article on "Myocarditis."

kindness, and that of Prof. Goodell, to whom he has given the books referred to, I have the pleasure of exhibiting these books and instruments. I had hoped that he would be here this evening himself, but in his necessary absence I shall endeavor to give the chief facts which he has stated to me.

Dr. Berry arrived in Japan in the spring of 1872, and was at once appointed the Medical Director of the European Hospital at Kobe, the remuneration being the privilege of using the examining room and one ward for a native dispensary. At the end of nine months he had ten students. By this time his dispensary work had become so arduous that he resigned his connection with the Hospital, and with the coöperation of native friends opened another dispensary in a more favorable place. But in a few months, in order to avail himself of proffered government aid, he changed to a still larger building owned and supported by the government as a hospital under native management. His students had now increased to twenty.

During this time he had often observed cases of *Kakké*, a disease resembling the *Beriberi* of India, but so modified by climatic and other influences as to prevent peculiar and independent features. Partly to learn the pathology of this disease, but chiefly to afford the students an opportunity to study anatomy, he wrote to the government, in the winter of 1872-1873, requesting the privilege of teaching human anatomy by dissection at the hospital, and asked that the unclaimed bodies of criminals should be furnished him for the purpose. Fruitless attempts had been made before in the same direction, but this application met with a singularly favorable response. The request was forwarded by the local to the central government with commendable promptness, and in a few days a favorable reply was received, and the local authorities were directed not only to grant the privilege, but to construct an excellent dissecting-room, which was completed in May, 1873. Owing, however, to Dr. Berry's absence, on imperative medical missionary tours, the building was not opened for use until November 8th, 1873.

On the day following the receipt of the first two subjects, the physicians of the Hiogo prefecture and neighboring provinces met at the dispensary, when the exercises were opened by reading in Japanese a brief history of anatomy (based largely on my Introductory Lecture on that subject), written and translated at the request of a number of Japanese physicians. After an hour and a half spent in reading, the circulation of the blood was studied, and then those present were shown the dissection of the brain, these studies occupying the entire day. The next day, with fifty students, the regular course was begun; Dr. Thornicraft, a resident English physician, assisting in the anatomical work. So earnest and zealous were the students that they scarcely allowed themselves time even to eat. Translations of parts of my edition of



Heath's Practical Anatomy were early made and widely copied, and proved of great service. Subsequently a more systematic course was entered upon, Dr. Thornicraft and Dr. Nishi (native) teaching anatomy, while chemistry and physiology were taught from English text books by Dr. Kimura (native), and materia medica, theory and practice, surgery, midwifery, and gynecology, by Dr. Berry. In 1875 the government regarded this medical school with such favor as to place in it, at government expense, eighteen selected young men.

Meantime another hospital of forty beds had been organized by Dr. Berry at Himeji, fifty miles away, and six dispensaries within a radius of twenty miles. To this hospital and the dispensaries he made monthly tours, meeting from five hundred to seven hundred patients each month, besides numerous physicians from the same localities. In order to instruct these physicians didactically as well as clinically, he prepared daily a lesson sheet, and sent it to the nearest station, where it was copied and thence forwarded to the next station. In this way about one hundred and twenty native physicians, who could not leave their practice to come to the school for the purpose of study, were taught the most important elementary principles of the science. The very full notes taken by Dr. Berry when a student, revised to meet the special requirements of the native students, were in this way of the greatest use to these Japanese physicians.

A feature of the work receiving special attention was that of affording the native profession, and also the public, information on epidemic diseases and on hygiene. Papers on smallpox, typhoid fever, and cholera, were circulated at different times when epidemics of these diseases occurred or were threatened, while the native press was employed to reach the masses by articles on house-building, heating, ventilation, drainage, nursing, care of children, how to prevent the illnesses of children in summer, etc.

In 1873 Dr. Berry learned much of the inner life of the Japanese prisons, and immediately set himself to work to effect much needed reforms. In October, 1873, he addressed a memorial to the government in reference to the evils of one prison (in which one of his students had been recently appointed physician), and requested permission to visit all the prisons of the country, report upon their condition, and offer suggestions for their improvement. Two years afterward the request was granted. The work of inspection was at once begun, and was followed by a report in which special stress was placed upon the following, among other topics, viz.: the importance of having the prisons managed by a central authority; a system of classification; the special education of prison officers for their position; the introduction of industrial labor; the teaching of trades and the art of self-help; the organization of societies to aid the prisoner after his release; the abolition, except under peculiar circumstances and with peculiar limitations, of corporal punishment;

making the reformation of the prisoner rather than his punishment the first aim; the importance of keeping up the domestic ties of the prisoner; the importance of Christianity as a reformatory agent; the establishment of schools for the education of the "crime class;" ventilation; prison architecture; care of the sick, etc. The Report was accepted by the government with grateful acknowledgment, published, and sent to all the prisons in the country. Upon the proposed reformatory system the government has already entered, with characteristic energy.

The numerous lepers who sought relief, and the strong prejudice against them in the public mind (obliging those who could not support themselves in seclusion to become wanderers among the shrines and temples, and often to die by the roadside), suggested the importance of an effort in their behalf; a work in which only the initial steps were taken when illness obliged Dr. Berry to return to this country. A paper was addressed to the government, and has secured their promise of coöperation in carrying out the proposed plan. In endeavoring to rid the country of leprosy this paper called attention to the following facts:—

1. Leprosy is limited in its power, and cannot propagate itself beyond five generations, if due attention is given to the care of its victims.

2. Under certain conditions of soil and climate, combined with whatever tends to depress the vital powers, either morally or physically, it is endemic; and these latter influences play an important part in the early production of the disease in those who inherit a tendency to it.

3. While as yet there has not been discovered any remedy for the cure of leprosy, yet it is susceptible of great improvement under proper medicinal, hygienic and moral treatment.

4. The disease is sure to reappear if, after treatment, the patient returns to the old habits of life in which the malady first made its appearance.

5. Evidence is wanting that leprosy is contagious in the ordinary intercourse of life, but it may be transmitted, like syphilis, by inoculation.

The following suggestions were made for its eradication:—

1. The enactment of a law that lepers should only marry among themselves, and their descendants only among others of like degree of removal from lepers (*i. e.*, the second generation to the second generation, etc.), until the fifth generation, when promiscuous marriage should again be allowed.

2. The early erection and adequate support of a large lepers' asylum, in a locality favorable to the treatment of the disease.

3. A careful inquiry, by a competent person, into the sanitary condition of those localities in which leprosy is, and those in which it is not, found, with a view of learning the general sanitary influences which do, and those which

do not, favor the appearance of the disease in persons inheriting it.

4. Careful supervision of all lepers by the government, and the removal of all lepers, including those improved by treatment at the asylum, from their old surroundings and improper hygienic influences to the favorable localities disclosed as above.

5. The appointment of responsible physicians to reside at such selected spots, who should carefully see to it that the lepers used such food, and observed such hygienic rules as should keep them in the best degree of health, should report to the director of the asylum the reappearance of any of the old symptoms, and should see to it that the patients returned for treatment if it were necessary.

6. The coöperation of the government and the director in a careful study of the disease, and the dissemination of needful information concerning it among the people.

Such, in brief, is the record of five years' work by a young man recently graduated! Surely if an earnest and useful life were even now terminated, he would not have lived in vain! And such a practical form of Christianity must appeal most powerfully to an intelligent nation, which sees its own ministers of religion ignorant, and inactive in remedying evils at their own doors, while a young American Christian phy-

sician leaves home and friends, braves the dangers of long travel by sea and land, and for nothing but the love of his Master and his fellow men, spends his life for their betterment, supported in his work by the generosity of his fellow Christians.

That such medical work is needed will be readily granted on looking at these instruments and books. While we shall see some things to approve, we shall be chiefly astonished at the barbarity of the modes of practice revealed.

The native physician travels somewhat in state, followed always by a servant carrying his medicines in a box such as I show you here. [Medicine chest, books and instruments, exhibited.]

This one has seen service for more than a century, yet its lacquer is in excellent condition. It is eleven inches high, by twelve inches long and seven inches wide, and contains five drawers sliding to and fro. In each drawer are a number of paper boxes, whose tops are ingeniously folded so that nothing can be spilled, even if the box be turned upside down, and yet, from the absence of all fastenings, the contents are readily accessible. All the drugs, as you see, are crude and repulsive, and among them some roughly powdered, yet easily recognized, beetles, are but a sample of their frequently disgusting character.

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### A Renal Form of Typhoid Fever.

The *Doctor* informs us that Dr. Charles Amat, in a thesis, describes a form of typhoid in which the renal symptoms are marked and characteristic. We have already descriptions of typhoid as it appears under a cerebral, cerebro-spinal, and thoracic form.

Dr. Amat draws the following conclusions:—

1st. The typhoid poison attacks the kidneys in the same way as the other organs—the brain and lungs, etc.; hence the necessity of admitting a renal form.

2d. Recognized by M. Gubler, M. Al. Robin, and Hardy, this form has not yet been the subject of a complete description.

3d. It possesses a complete symptomatology—slight diarrhoea, considerable debility, extreme adynæmia, earthy color of skin, abundant epistaxis, rapid delirium, very high temperature, rash not abundant, and a special urological group of symptoms—sanguinolent coloration, odor of boiled bread, contains sediment formed by the red and white globules; albumen in large quantities.

4th. The ordinary form differs from the renal

form by the greater intensity of the abdominal phenomena, by the more abundant diarrhoea, by the delirium, by the less elevated temperature, by a more confluent eruption. The urine is orange colored; the sediments are not constant, consisting principally of urates and phosphates. The albumen is temporary.

5th. The kidneys present the signs of interstitial nephritis.

6th. The renal form may be confounded with the ordinary form, or with primary renal disease.

7th. The progress and duration vary. The termination is generally fatal.

8th. The variations in quantity and composition of urine aggravate the prognosis or render it favorable.

9th. The patient should be placed on milk diet, and cold baths are contra-indicated.

#### Age and Sex in Relation to Asthma.

Dr. J. B. Burkart remarks on this subject, in the *Medical Press and Circular*—

The first ten years of life are most obnoxious to asthma, and the reason is, that infantile bronchitis and catarrhal pneumonia, complicating measles and whooping cough, are most frequent at that time. But, though the foundation of

the disease may be laid at so early a period, its manifestation depends upon the extent and intensity of the primary affection. In comparatively rare instances the predisposition slowly develops, and declares itself only in youth and early manhood. At a more advanced period of life the involution of the lungs, premature or in connection with that of the body in general, constitutes a very marked liability to the dyspnoeal paroxysms. In old age, however, asthma soon loses its peculiar characteristics, inasmuch as the intermittent is converted into a permanent dyspnoea, while the anatomical lesions upon which this depends are readily discernible.

Asthma is decidedly more prevalent among men than women. How far the wear and tear of the body, proceeding from habits and occupation, are accountable for its greater prevalence in the male sex, is not quite known. The supposition that those suffer most who most expose themselves to the inclemencies of the weather, as, for instance, "costermongers, cabmen and Covent Garden porters," is not borne out by facts. On the contrary, those who lead a sedentary and indoor life supply the greatest contingent of asthmatics. The occupation, however, can have no bearing upon the question in the first ten years of life, where that preponderance of the male sex is already noticeable. It appears that the greater frequency of asthma in the latter is mainly due to the greater mortality of the female from whooping-cough.

#### Treatment of Placenta Prævia.

In the *Edinburgh Medical Journal*, Dr. Charles Bell states that in this complication the physician's success will, in a great measure, depend on his forming a correct diagnosis. If the os uteri is small and rigid, this will be rendered a very difficult matter. Therefore our duty will be, in the first place, to have recourse to plugging, until this state of the os is overcome; and the best kind of plug is the india rubber bag filled with air, which Dr. Keiller had the merit of introducing into midwifery practice. This is infinitely superior to "Dr. Barnes' bags," as they are called, which are filled with water. The bag filled with air not only affords a light and good support, but it enables the accoucheur to ascertain if the hemorrhage is still going on, and it is easily applied; whereas, if a sponge or handkerchief is employed, it is introduced with difficulty, and the blood is prevented escaping, so that the accoucheur is kept in the dark as to the continuance of the hemorrhage, unless the general condition of the patient enlightens him.

If the labor pains are active, it will be desirable to remove the plug, to ascertain what progress has been made in the dilation of the os, and if it is sufficiently dilated, or easily dilatable to admit the hand, and the child has been ascertained to be alive, and the hemorrhage profuse, there ought to be no delay in delivery by means of turning. But if the child is dead, and the mother much exhausted, it may

become a question if the entire separation of the placenta may not be attempted, especially if there is a natural tendency to its being detached by the uterine contractions. If the os uteri is not sufficiently dilated to admit of either of these operations, and if the case is one of central presentation, the plug should be again employed, as it is probable that the hemorrhage is caused by the placenta being put on the stretch by the pressure of the child's head, and the support afforded by the plug may have the effect of checking it until labor is further advanced. But if it is a partial presentation, and the distended membranes are found occupying the entire disk of the os, rupturing them may have the effect of checking the hemorrhage, by allowing the uterus to contract on the vessels from which it was flowing, just in the same manner as takes place when they are ruptured in accidental hemorrhage. In regard to Barnes' operation, I cannot imagine any case in which it would be justifiable.

#### The Pathology of Colles' Fracture.

Dr. Hector Cameron, of Glasgow (*Glas. Med. Journal*, March, 1878), has been so fortunate as twice to have the opportunity of examining a recent specimen of the fracture after death. In the first, the fracture, although transverse, passes obliquely from above downward and forward, so that while at the anterior aspect of the bone the line is not more than a quarter of an inch from the articular surface, on the posterior the distance is increased to about an inch. There is some comminution of the lower fragment, and the broken surface of the upper is extremely rough and denticulated. This very irregular and notched character of the fractured surface appears to be usual (Malgaigne); and is of interest in so far as it may cause difficulty in the reduction of the displacement. In this particular instance, although it cannot be said that there is any impaction, a toothed projection on the long fragment so locks the other fragment in its new position upward and backward, that it would be impossible to reduce it, except by great force. In the second specimen there is a transverse fracture, about three-quarters of an inch above the articular surface of the bone. In front the break is hardly complete, the periosteum holding the fragments together, but allowing them to bend at an angle there, as upon a hinge, so that the lower fragment is, as usual, tilted upward and backward, and has the direction of its articular surface so altered that it looks upward, backward, and outward. On the posterior aspect not only is the fracture complete, but the dense outer covering of the upper fragment is driven firmly into the substance of the lower, splitting it like a wedge, into three fragments, which, however, hold closely and securely together. The impaction is complete and irremediable. Although firm extension improves matters, it does not unlock this connection between the two fragments on the back of the bone.

## REVIEWS AND BOOK NOTICES.

## BOOK NOTICES.

Annual Reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the Fiscal Years 1876, 1877. Washington, 1878.

The energetic efforts of Dr. John M. Woodworth, Supervising Surgeon-General, and of the very efficient corps of medical officers whose assistance he has received, have firmly established the Marine Hospital Service on a footing proportionately no ways inferior in public usefulness to the Medical Corps of the Army or Navy; in fact, as the Marine Hospital Service should normally increase in size, efficiency and effects, with peace and the growth of great industries, the time must come when it shall equal or surpass the two corps whose existence depends upon actual or anticipated war.

The Report which we have before us gives a clear statement of the operations of the service during the past year, its financial and economic statistics, and also those of a medical and surgical character. An appendix embraces a number of papers contributed by various members of the corps. Three of these are on yellow fever as it appeared at Savannah in 1876, and Fernandina in 1877, by Drs. George H. Stone, Henry Smith, and Robert D. Murray. Dr. Walter Wyman gives an interesting sketch of the physical condition of the firemen on Mississippi and Ohio river steamboats, a class, from his account of them, as much exposed to life-shortening influences as any we could point out.

A timely and cogent article on the necessity of having merchant seamen examined by a competent medical man before shipping, is contributed by surgeon P. H. Bailhache. He shows, by the most convincing arguments, that this measure would save many a ship, and much expense to ship owners, ship masters, and to the Marine Hospital service. Moreover, the examinations could be conducted by the officers of the Marine Hospital service, without any expense to the government, to the seaman, or to the vessel. A novice might think that such a recommendation, of advantage all round, would forthwith be adopted. But the really influential class in the matter are not even mentioned by Dr. Bailhache; and they are certain

to disapprove of the proceeding, and their disapproval is sufficient to prevent the adoption of the measure. We refer to the keepers of the sailors' boarding houses. This wealthy and powerful class are now defying the Chamber of Commerce, and its best counsel, in New York, and until their power is utterly broken no great reform can take place in our merchant marine.

The adoption of the metric system by this branch of the public service has already been adverted to in this journal. The change is set forth at length in the Report.

**Narrowing, Occlusion and Dilatation of Lymph Channels. Acquired Forms.** By Samuel C. Busey. 8vo, pp. 195.

The studies of Dr. Busey on lesions of lymph channels, commenced in his volume on "Congenital Occlusion and Dilatation of Lymph Channels," which was noticed in this journal some months ago, are here continued by a careful examination of a large number of instances of acquired lesions. The work was originally in the form of contributions to the *New Orleans Medical and Surgical Journal*, through the pages of which some of our readers are, doubtless, familiar with them.

The earlier part of the work embraces the anatomy and histology of the lymphatic system, after which follow a large number of cases illustrative of the acquired diseases to which it is subject. These are drawn from a very wide reading on the subject, are described in detail, and often illustrated with wood engravings. No one can fail to see that the author has entered into his study *con amore*, and he has completed a treatise on this little known class of diseases superior to anything of the kind we have heretofore had in the language.

**How to be Plump; or Talks on Physiological Feeding.** By T. C. Duncan, M.D. Chicago, Duncan Bros., 1878. Cloth, 12mo. pp. 60.

This trivial little book is arranged in a series of conversations between the fat doctor, who is supposed to be the author, and the lean artist, who wants to put more flesh on his bones. When the doctor discloses the secret of his plumpness it is found to be that he drinks plenty of water, which fluid, he learnedly shows, is the chief ingredient in fattening up. The book is a small one, but it might be made considerably smaller without omitting any part of it worth reading.



THE

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D. G. BRINTON, M.D., EDITOR.

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**SUGGESTIONS FOR FAT PEOPLE.**

It is BRILLAT SAVARIN, we believe, who, in his immortal book on gastronomy, avers that no one is entirely satisfied with his weight; every one wants to be somewhat fatter or somewhat leaner; or if he or she really is just about as he would be in this respect, he imagines a tendency one way or the other, which he feels he must be on his guard to correct.

There is enough truth in this to make it an object for that enterprising class of individuals who make their money out of the weaknesses of their fellows to advertise pretty constantly various secret fat-producing and fat-decreasing nostrums. The extraordinary sale of BANTING'S famous pamphlet, which reached sixty or seventy thousand copies, attests the same. And almost every year there is some new remedy offered to the regular profession, either to make fat or to disperse it.

The larger class, or, at any rate, apparently the more anxious class, are those who are too

fat, and who wish to grow leaner. Of the various drugs proposed to accomplish this, acids, in the form of vinegar, and alkalies, especially liquor potassæ, are the best known. No doubt both these produce the effect desired, but they both do it at the cost of profound disturbances of the nutritive functions, and, in many cases, serious danger to life.

The *fucus vesiculosus*, has been extensively lauded. It probably acts through the iodine in it, actively stimulating the secretory organs; and has, therefore, the injurious effects known in chronic iodism. We have seen letters from some who have used the extract to diminish their weight. The effect desired was produced, but the patients generally spoke of sensations of prostration, sinking, loss of appetite, etc.

The Banting system of diet has in many cases been tried with success, but it, too, carried out without intelligent knowledge of the patient's condition, has at times led to severe and dangerous disorders of the emunctories. In the case of a friend, of general fine health, and in early middle life, it has on several occasions, when he has tried it, resulted in rapid muscular debility and mental lassitude. In all such cases it should not be pushed.

Recently Dr. TARNIER has called attention (in the *Am. de la Soc. de Med. de Gand*, No. iv, 1877,) to the success of a milk diet in these cases. He commences by allowing three-fourths the usual food and one litre of milk the first day; one half the usual food and two litres of milk the second day; one fourth the food and three litres of milk the third day; and thereafter four litres of milk daily and nothing else. Often, however, it is better to allow a small proportion of the usual food each day, to prevent the patient becoming tired of the milk. Should diarrhoea set in, the milk should be suspended for a while, and then resumed. The treatment may be continued until the fat is reduced. Dr. Tarnier claims that this treatment is always successful, and entails no danger whatever.

## NOTES AND COMMENTS.

### Rules for Sending Consumptives to Travel.

The following rules are those laid down by Dr. James Edward Pollock, in a recent lecture:—

1. Never permit any patient to travel who is not in the quiescent stage of disease, or who, in other words, is feverish, with high evening temperature, and the physical signs and conditions already described to you, indicating the continuous form of phthisis. Observe this rule, and you will be successful; break it, and your patient and his friends will not thank you.

2. None of the secondary complications should be present, as continuous or frequent diarrhoea, serious gastric disorder, or laryngeal irritation.

3. Chronic single cavity, with retraction of walls accomplished or proceeding, is favorable for removal to a dry, bracing locality, if the hæmoptysical element be wanting in the case.

4. That form of disease described as diffused deposit in one lung, without much dullness or signs of massing of disease, with pretty large chest, and with moderate emaciation, generally does well on a sea voyage.

5. A first-stage case, already chronic, does best for traveling about, with frequent change of residence. The complication with bronchitis or asthma is generally much benefited by change.

6. Persons ought not to travel at all with feverish symptoms; with secondary complications; with a large amount of local disease in any stage; with both lungs diseased, with poor digestion and greatly lowered nutrition; or in such a state of weakness or emaciation as to require home comforts, peculiar beds or chairs, or varieties of invalid cookery.

### Sea Sickness and its Treatment.

By a number of observers, nitrite of amyl in five-drop doses is said to exert a favorable influence in sea sickness. A writer in the *Lancet*, Dr. J. R. Leeson, says, on the subject—

There are two theories about sea-sickness: one that it is owing to the food tossing about in the stomach, and teasing it and the diaphragm with its jactitations, nausea and vomiting being the natural consequence; the other that the stomach has nothing to do with it, its cause being a congestion of the brain and cord, which acts in a reflex manner in the stomach. Those who hold the latter, of course, would expect

great things from nitrite of amyl, and knowing, as we do, the marked effect it has on the "status epilepticus," one might become too sanguine. Which of these two theories is right I do not pretend to say, but I have an idea that most cases are due to a little of each, and that, with a loaded stomach and congested liver, we may expect but little from amyl; whereas in cases more purely nervous, especially as are seen in women, we have a very fairly successful remedy, and one that warrants much more varied and extensive trial than it has hitherto received.

### Atmospheric Organisms.

M. P. Miguel gives, in a paper recently read before the Académie des Sciences at Paris, the results of his observations on the minute organisms seen in suspension in the air, the diameter of which exceeds two millièmes of a millimetre. He finds, first, that the mean number of microbia is at its lowest in winter, rapidly augments in spring, remains stationary in summer, and falls in autumn; and, secondly, the rain always occasions recrudescence of these same microbia. In other words, temperature and moisture appear to be, apart from purely local influences, the principal causes of variation in the number of the microgerms of the atmosphere.

### Glycerine as an Anti-Ferment.

Mr. Munk states, in the *Chemical Journal*, that glycerine retards the lactic and alcoholic fermentations. One-fifth of glycerine added to milk, at a temperature of 15° to 20 C., prevented it from turning sour for eight or ten days. One-half or one-third of glycerine, at the same temperature, postponed the fermentation of milk for six or seven weeks. At higher temperatures, larger quantities are needed to produce the same results.

### The Periodicity of Epidemics.

An interesting study of this subject, as applied to measles, in London, has been published by Dr. H. Courtenay Fox, in the *Medical Times and Gazette*. His conclusions are that a twofold law of periodicity has been disclosed. The successive epidemics have recurred with tolerable regularity, and without any marked exception to the rule, at intervals of about two years. Beside this, the severity of the disease appears to be subject to fluctuation, in accordance with a wider cycle of nine or ten years.

If, in the future, measles observes the same rules by which its known course has been hitherto directed, we may assume that London is near the commencement of a fifth group of years, in which the epidemics will be rather more frequent and fatal than during the last decade.

#### Phimosis as a Cause of Rupture in Children.

Mr. J. Arthur Kempe reports, in the *Lancet*, a series of observations which leads him to believe that phimosis is not an unfrequent cause of hernia in infants. He states that the sequel of events is probably as follows:—The abdominal parietes are naturally weak in children, which renders them less able to resist impulses which project the viscera against weakened parts. Here, then, is a remote or predisposing cause. The exciting cause is readily supplied by the frequent and continued efforts that the child makes to overcome the obstruction offered by the tight prepuce, and by the cries uttered consequent on pain caused in making these efforts.

#### Extemporized Splints.

A Paris correspondent to an English journal writes:—Surgeon-Major J. H. Porter, Assistant Professor of Military Surgery at the Army Medical School of Netley, is very successful, in this portion of the Exhibition, with his extemporized splints made of telegraph wire and pieces of a newspaper or a soldier's tunic. The medical visitors to the Exhibition are very much pleased with these simple, neat, and ingenious appliances. All that is requisite is a piece of telegraph wire, some cord, and a piece of cloth or paper, and a splint may be made which can be applied to the finger, the elbow, inside arm, outside arm, the leg, etc.

#### The Periodicity of Yellow Fever.

The following positions are maintained by Dr. Robert Lawson, in a late number of the *Lancet*:—

1. Yellow fever is not a disease always presenting the continued form, but it is met with frequently as a remittent, and even as an open intermittent.

2. The sporadic cases, presenting yellowness of surface and black vomit, are also found to have the train of urinary symptoms characterizing yellow fever, and are consequently identical with those met with during an epidemic.

#### Cauterization of the Os in the Vomiting of Pregnancy.

\*This plan of treatment is growing in favor. Dr. J. Marion Sims recommends it strongly, and Dr. D. Lloyd Roberts, of Manchester, writes, in a slightly sarcastic tone, to the *British Medical Journal*:—

My own experience quite bears out all that your contributors and Dr. J. Marion Sims assert as to the good effects which have resulted in such cases from the application of nitrate of silver to the os and cervix uteri. It is more than ten years since I first decided on trying nitrate of silver, after all the usual remedies had failed, in the case of a patient under my care at St. Mary's Hospital, who was suffering from a most obstinate attack of vomiting during pregnancy. The remedy, therefore, is not absolutely new, nor is it infallible. I believe it, nevertheless, to be in many cases a very valuable one. Indeed, I suggested its use, among other remedies, in my "Student's Guide to the Practice of Midwifery."

#### Anorexia.

Dr. Fonssagrives recommends the following formula:—Bruised Chinese rhubarb, bruised peel of bitter orange, of each four parts, and water 250 parts. This is to be infused cold during three days. Two or three tablespoonfuls are to be taken daily, an hour before dinner. If this does not succeed, he prescribes one or two pills an hour before dinner, each containing one centigramme of alcoholic extract of nuxvomica, and twenty centigrammes of extract of gentian, continuing them until the appetite is suitably restored.

#### Infantile Convulsions Treated by Ether, Hypodermically.

A French physician, Dr. Gellé, recommends this plan in *La Presse Médicale*, and gives a case in point:—

The infant was only seven months old, and, owing to improper feeding and the irritation of dentition, was suffering from continual vomiting and purging pain in the bowels, fever and fits of general convulsion, alternating with a comatose condition. The chief indications were to arrest the vomiting and convulsions, then to bring on a crisis by sweatings, and lastly, to watch for the approach of a threatened attack of pneumonia. Ten drops of sulphuric ether were injected hypodermically into each leg of

the child. The insertion of the instrument did not arouse the little patient. The convulsions ceased and did not return after the injection of the ether, the vomiting also ceased, and a period of repose was succeeded by a natural sleep.

#### The Animus of Suits for Malpractice.

The editor of the *Pacific Medical and Surgical Journal* forcibly says, on this subject:—

Of the many suits for malpractice that have come under our observation, we have scarcely ever known of one which did not exhibit, on the part of the prosecution, a baseness of motive and an absence of honor thoroughly disgraceful to the human character. Nine times in ten the plaintiff is a pauper who has received the gratuitous service of the man whom he prosecutes; or worse than a pauper, a sordid villain, who resorts to the expedient to evade payment, or as a business speculation. There is always a ring, which is completed by one or more jackals of the law, who are prompt to instigate litigation for the purpose of plunder, and one or more medical witnesses, of the sneaking and malicious type.

#### The Actual Results of the St. Louis Law Regulating Prostitution.

It is no easy matter to determine whether the law which, for a few years, regulated prostitution in St. Louis, was of positive general good. The Mayor said, most positively, that it was; several members of the American Medical Association reported to that body that it was; the editor of the *St. Louis Clinical Record* says—"The working of the law once in force in St. Louis, imperfect as it was, demonstrated to our satisfaction the necessity and utility of some regulation of the evil. Appeals to prejudice are of no avail; let us have facts in relation to this subject." On the other side, a series of frantic appeals to prejudice, and assertions wholly unsupported by evidence, are all we have seen offered.

#### Popular Medical Information.

An amusing example of this is given by Dr. Benjamin Edson, in a recent paper. It is in reference to milk and other food. Dr. Edson says:—

Its value I had supposed to be unquestioned, until I saw recently, in a journal ostensibly devoted to Popular Health, an objection so striking that I reproduce it. In answer to a corre-

spondent the astute editor writes: "Milk is not digestible; for (and here comes in the syllogism) food, to be readily digested, must be masticated; milk cannot be masticated, and is, therefore, indigestible." Were this an isolated case of violence to common sense, it would scarcely be worth noticing, but it is a not rare specimen of the medico-scientific pap with which the credulous public is quite too extensively fed.

#### Chaulmoogra Oil.

Many observations on this drug establish its character as a powerful remedy. But the cases recorded are not sufficient in number to allow us to decide positively on its specific properties. It has been used apparently with great success in a bad case of leprosy, in a case of scrofulous, enlarged and ulcerated glands, and in an old case of secondary syphilis. Dr. Hobson has seen two cases of leprosy certainly cured by it. Professor Richard Jones states that it is a specific in consumptive cases. But, as he gives no cases, this opinion must be received with caution. It has also been used in other skin diseases, in rheumatism, scrofula, elephantiasis and ichthyosis.

It is administered both internally and externally; the dose being six to fifteen minims for an adult.

#### Palpation in Examining the Heart.

At a late meeting of the Royal Medical Society of Vienna, Dr. Isidor Hein read a paper on this subject. The author's leading idea was that each change felt by the palpating finger corresponds with a change in the percussion sound, as both are dependent on the same factors; and that also certain vibratory changes correspond to the tactile sensations. The vibratory power of bodies is tested by touch, and by palpation the heart's limits can be sufficiently well defined, which cannot be done by percussion; an impulse, though so weak as not to produce a sound, becomes, under palpation, a valuable sign. The author expressed the belief that his method of examination was likely to be of great use in medicine.

#### Changes of Matter in Fevers.

The *London Medical Record* gives an account of the researches of Dr. Wertheim, of Vienna, on this subject. His apparatus was constructed on the model of that used by Pettenkofer and Voit for physiological experiments. The follow-



ing were the results at which he had arrived after a prolonged and troublesome research. 1. The change of matter, in relation to quantity and weight, is less in febrile patients than in healthy persons. During fever, the organism loses to a remarkable degree the power of absorbing oxygen from the air and eliminating carbonic acid. 2. Convalescents require a considerable time to regain the normal condition of absorption and elimination; for example, from four to six weeks after scarlet fever, etc. The rise of temperature is not due to increased combustion, but to retention of heat in the body.

## CORRESPONDENCE.

### Recurrent Hematocoele.

ED. MED. AND SURG. REPORTER:—

On May 15th, 1878, I was called to see Mrs. C., aged 25; had been married two years; no children. She stated that she had always suffered pain at each return of her monthly sickness, but never so severe until about a year ago. At that time she noticed, after menstruation had ceased, a heavy bearing down feeling in the pelvis, sharp shooting pains, coldness of extremities, interference with bladder and rectum, frequent micturition, with pain. After a few days these symptoms would abate somewhat, only to return with more severity at the following period of menstruation. I found, on making a physical examination, a large, soft and smooth tumor posterior to the uterus, pressing that organ against the bladder; the tumor was slightly fluctuating and very tender to the touch.

In a few days, under palliative treatment, the tumor had diminished in size and tenderness, so I left the patient, telling her to send for me at the very beginning of her next monthly sickness. She did so June 15th. I introduced a sponge tent into the os uteri, which was very small, left it in for a short time, then removed it, when the blood came away freely.

The patient stated that she never had passed a period with so little pain. Since that time she has had no pain, neither at the time of nor after menstruation. M. S. MARCY, M.D.

Cold Springs, N. J.

### Case of "Superfoetation."

ED. MED. AND SURG. REPORTER:—

I have met with a case in my recent practice, the particulars of which I give below, which, by reason of its bearing upon the vexed question of "superfoetation," may be of interest to your readers and to the profession in general.

June 29th, 1878, at 4 o'clock A.M., was called to see Mrs. Lantz, aged thirty, multipara. At 8 A.M. she was delivered naturally of a healthy male child; weight six pounds. The delivery

was followed by a most alarming hemorrhage. I administered ergot with cold applications, the placenta was expelled and hemorrhage ceased. I remained with her until the morning of July 1st. In this interval I made careful examination, detecting the presence of another child. There was no secretion of milk following the birth of this child. I visited Mrs. L. occasionally, until July 14th, on which day, at 4 A.M., I was summoned to her bedside again. At 8 o'clock of the same morning I delivered her, in the course of natural labor, of a healthy female child; weight four and a half pounds. After birth of this child secretion of milk began, and up to the present writing, August 19th, mother and children are all doing well.

We have here a period of sixteen full days intervening between the births of these children. Entirely separate and unconnected in their uterine development, as in their birth, is this a case of twin pregnancy, or of superimpregnation? Or, may we have a case of twins from this kind of superconception, if, indeed, such conception be really possible. That it may occur at an early period of pregnancy seems to me quite possible and probable. But let us hear from others on the subject.

Respectfully, etc., B. W. DENNY, M.D.  
Whiteley, Greene Co., Pa., Aug. 19th, 1878.

## NEWS AND MISCELLANY.

### Reports of Epidemics.

OFFICE SURGEON-GENERAL, M.H.S.,

Washington, August 31st, 1878.

Abstract of Sanitary Reports received during past week, under the National Quarantine Act:—

NEW ORLEANS.—During the week ended yesterday noon there were 1204 cases of yellow fever and 333 deaths, making, in all, 2377 cases and 867 deaths. During the twenty-four hours to noon yesterday there were 169 new cases and 59 deaths.

VICKSBURG.—During the week ended yesterday evening there were 116 deaths from yellow fever, making 185 deaths in all, 17 of which occurred during the last twenty-four hours. It is estimated that 800 cases of fever have occurred to date, about half of these in the past week; and 59 new cases in the last twenty-four hours. Dr. Booth, in charge of the patients of the Marine Hospital Service, died the 27th.

MEMPHIS.—721 cases of yellow fever, and 241 deaths, for the week ended August 29th.

MORGAN CITY, LA.—The refugee reported last week sick of yellow fever died August 23d. 7 other cases have since occurred, and 4 deaths in all, to yesterday noon.

BAY ST. LOUIS, LA.—One death from yellow fever occurred the 18th instant.

OCEAN SPRINGS, MISS.—Three cases of yellow fever occurred yesterday morning. No deaths during the week.

WATER VALLEY, MISS.—2 cases yellow fever, both refugees; the 1st occurred on the 12th,

and is convalescent; the second on the 26th, which terminated fatally yesterday.

HOLLY SPRINGS, MISS.—7 cases of yellow fever and 2 deaths to yesterday evening—all refugees. Good health in the city and in the United States military camp.

LEIGHTON, ALA.—A refugee from Memphis arrived August 18th, and died of yellow fever August 24th.

ST. LOUIS.—8 cases of yellow fever during the week, and 2 deaths—all refugees. At quarantine, below St. Louis, there were 6 new cases and 1 death, besides 20 doubtful cases admitted during the 48 hours ended yesterday evening.

CAIRO, ILL.—A river boatman from Memphis died of yellow fever August 24th.

LOUISVILLE.—Since last report 11 refugees and boatmen have been attacked with yellow fever after arrival in Louisville, 4 of whom have died.

CINCINNATI.—9 cases of yellow fever—5 from steambort "Golden Rule"—and 4 deaths, have occurred since last report. Two of the deaths were the cases reported last week. All came from infected places south.

WHEELING, W. VA.—Case reported through the press on the 28th, officially pronounced not yellow fever.

PITTSBURGH, PA.—A deck-hand on the steamboat "John A. Porter" arrived August 25th, and died next day of yellow fever.

PHILADELPHIA.—2 cases of probable yellow fever occurred August 24th, the persons having arrived from Vicksburg a few hours previously. They were immediately removed to the hospital for infectious diseases.

HAVANA.—71 deaths from yellow fever and 6 from smallpox during week ended Aug. 26th.

CLIFTON, ENGLAND.—The U. S. Consul at Bristol, England, reports a severe outbreak of enteric (typhoid) fever at Clifton, near that place, which had been traced to the use of milk from a farm where the pump is five yards from the privy vault. Previous to the outbreak a young lady had been carried to the farm house to complete her convalescence from enteric fever. A wholesome lesson is given in the action of the medical officer of health, who notified the farmer that if he let any member of his family use the contaminated pump water, and disease arose from it, or if he sold any milk and disease arose from it, he would lay information against him of having committed manslaughter.

TRIESTE, AUSTRIA.—Some cases of the plague have occurred at Trieste. Advices to Aug. 17th.

No reliable information received from *Key West*, and no official reports obtained from *Grenada*, *Canton*, *Port Gibson*, *Miss.*, and *Port Eads*, *La.*

Reports from other places indicate good health.

JOHN M. WOODWORTH,  
Surgeon General U. S. Marine Hospital Service.

#### An Economist in Health.

Not a few people during the hard times we have been having this summer think it a prudent economy to forego their usual vacation. An

instance is recorded by the *Detroit Press*. A druggist of that city was astonished at the quantity of drugs applied for by a certain family, and was led to ask the small boy who brought the prescriptions:—

"Got sickness in the family?"

"Kinder," was the reply.

"Your father?"

"Yes—all but me. Ma is using the plasters for a lame side and taking the tonic for a rash which broke out on her elbows. Pa takes the troches for tickling in the throat, and uses the arnica on his skin. Louisa uses the catarrh snuff and the cough medicine. Bill wants the brandy for a sprained ankle, and the squills are for the baby. That's all but Grandma, and this prescription is to relieve the pain in her chest and make her sleep harder."

"Rather unfortunate family," remarked the druggist.

"Well, kinder, but Pa says it's cheaper than going to the seashore."

#### Items.

—The well known London physician, Dr. George Harley, F.R.S., has the courage of his opinions. He is an advocate of reformed spelling, and consequently he spells spell. In his private correspondence, as well as in his publications, he avoids all superfluous consonants, and "in order," he says, "to prevent people marveling at what, at first glance, might appear strange spelling, I have had printed in neat letters, in the upper left hand corner of my note paper—

Reformed Spelling!

No duplicated consonants  
except in Personal Names."

Dr. Harley calculates that "to the proprietor of the *Times*, by the abolition of redundant consonants, would be effected a pecuniary saving, in the form of space, time and material, of from eight to ten thousand pounds per annum!"

#### OBITUARY.

DR. E. M. MARTIN, U. S. N.

At a meeting of the Physicians who attended the funeral of the late E. M. Martin, Assistant Surgeon U. S. Navy, from the residence of his father, John Martin, M.D., of Georgetown, Lancaster county, Pa., August 23d, 1878, the undersigned were appointed a committee to present to the family, and forward for publication, the following resolutions:—

WHEREAS, It has pleased Almighty God, by a sudden dispensation of His Providence, to remove our young professional brother, E. M. Martin, M.D., therefore,

Resolved, That in his decease we are called upon to mourn the loss of one whose kindness of heart and social qualities endeared him to his friends, and rendered him a favored and highly-respected member of society.

Resolved, That in his death the U. S. Navy has lost a member whose mental qualities and medical attainments bade fair to entitle him to a high standing among his professional brethren.

Resolved, That we tender to his bereaved father and family our sincere and heartfelt sympathy.

Resolved, That a copy of these resolutions be forwarded to the family, and also be furnished for publication.

Drs. ADIAR,  
RAILEY,  
LEAMAN, Committee.